

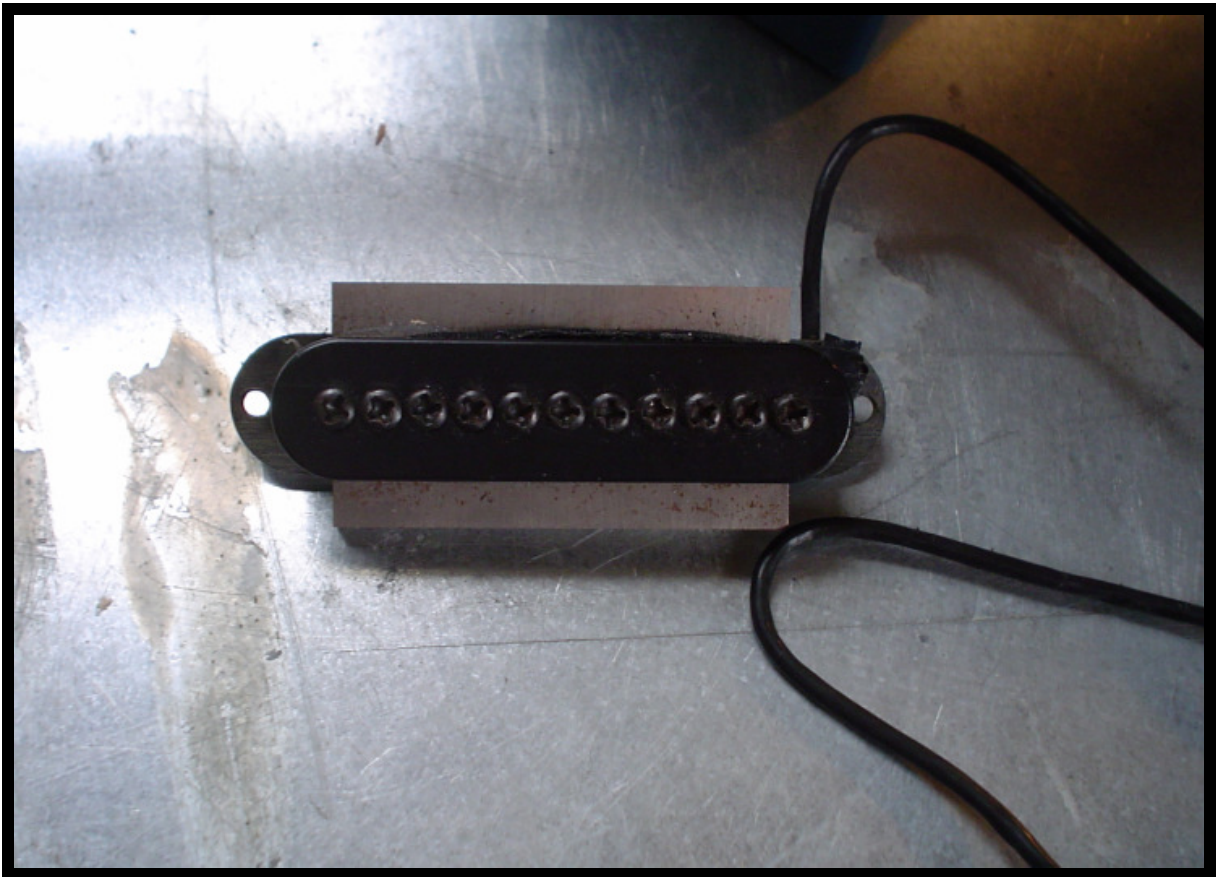
BONUS SECTION – SWITCHING OUT A PICKUP IN A CARVIN BOLT GUITAR

I get a lot of questions about changing out the pickups in different guitars, and how to coil cut them. So here is a very common modification done to a Carvin Bolt, but can be done to almost any guitar. It involves changing out an existing 2-wire conductor pickup and replacing it with a 4-wire conductor pickup. This new pickup will be coil cut, so it will now yield 3 different tones instead of just one (north coil on, both coils on, and south coil on). This will allow you to get some real interesting pickup combinations, like the neck pickup **on**, up along with the north or south coil **on** in the middle pickup.

Below is the stock Carvin Bolt guitar. It is set up like a Stratocaster with a humbucker in the bridge position. I am going to take out the middle pickup and swap it with a 4-wire pickup (4 wires plus an additional ground wire so 5 total).



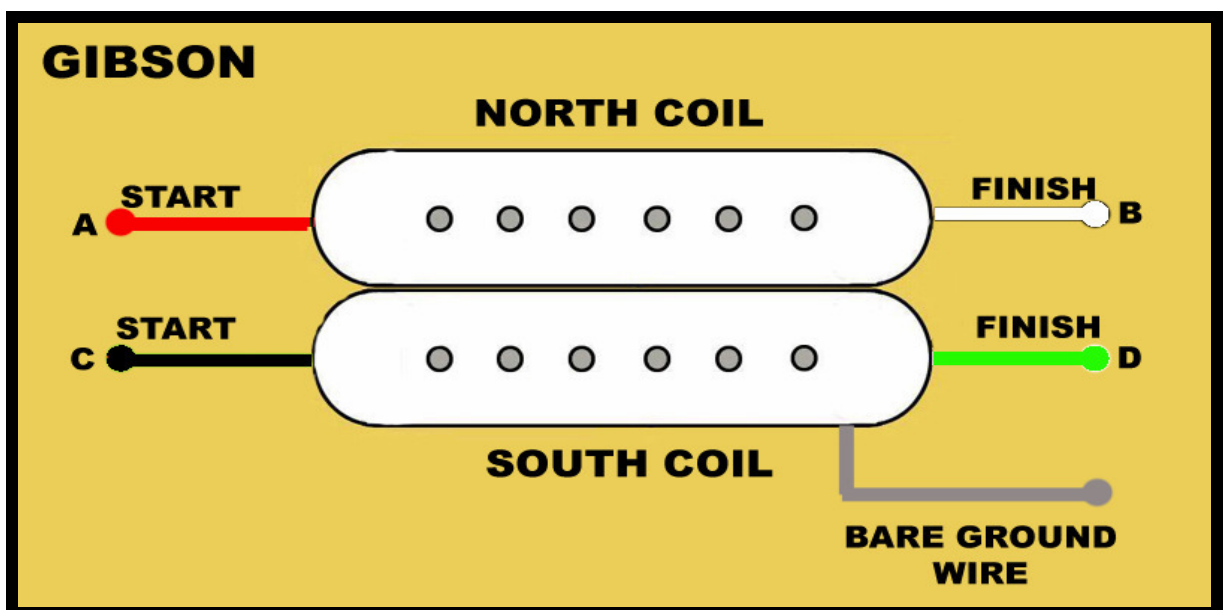
Here is the Carvin AP-11 pickup that was removed from this guitar. Carvin has been making their own pickups since the 1950's, and they really know how to make high quality stuff. Check out the HUGE magnet on the bottom of this pickup. These are low impedance pickups, yet surprisingly have a sweet, warm sound. Plus, they have 11 adjustable pole pieces, so you can easily increase the volume of any string, or any string in the middle of a bend. These are some of the best sounding pickups I have played, and you can usually find used ones on Ebay for around \$30. Definitely worth looking into for your next guitar project. Note: This Carvin pickup has one hot wire that was solder to the 5-way pickup selector switch, and two ground wires that were soldered to the volume potentiometer case.



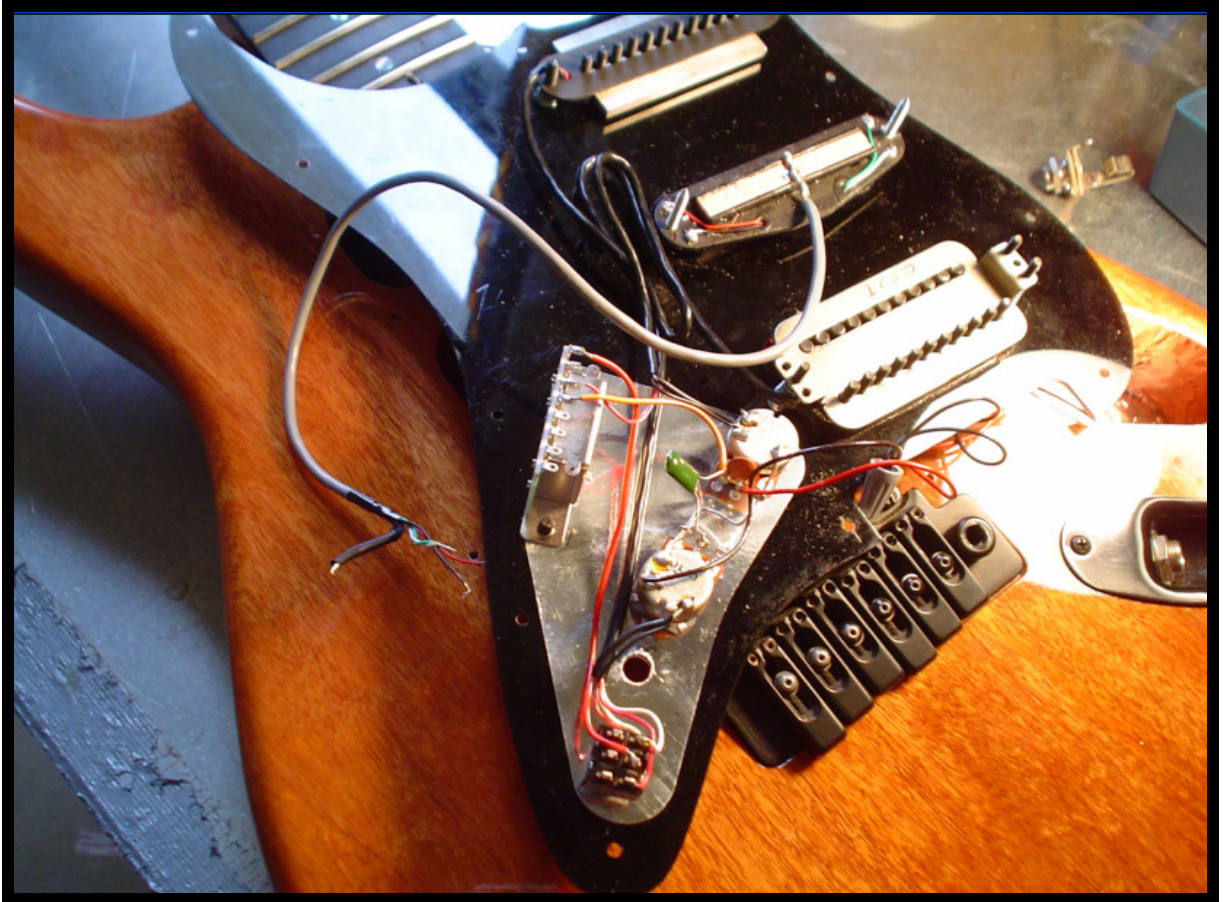
On the next page is the new rail humbucker that I have installed in the middle position of the pearloid pickguard. This humbucker is a 4-wire conductor pickup that has a DC resistance of around 13K Ohms as a humbucker, and around 6K Ohms per coil. It has plenty of power when both coils are on, but also has a killer vintage tone when you switch to single coil mode.



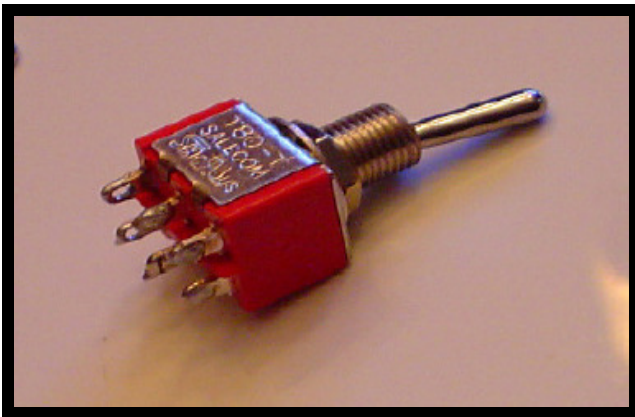
This rial pickup uses the same color codes as a Gibson pickup. Red is hot, black is ground, green and white form the series link, and the bare wire also goes to ground.



Here is the underside of the pickguard, with the new pickup installed in the middle position.



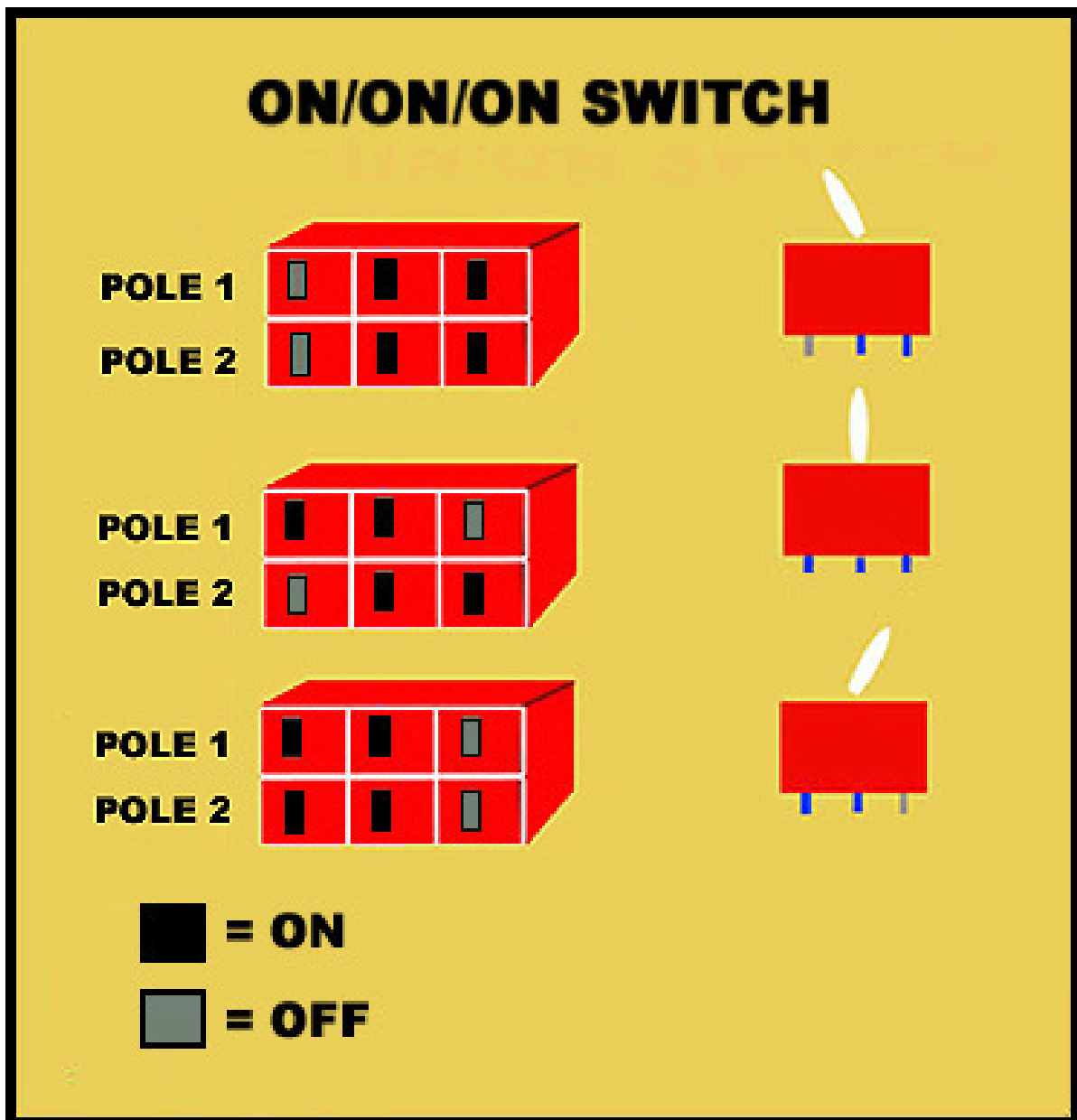
Below is an **on/on/on** mini toggle switch.



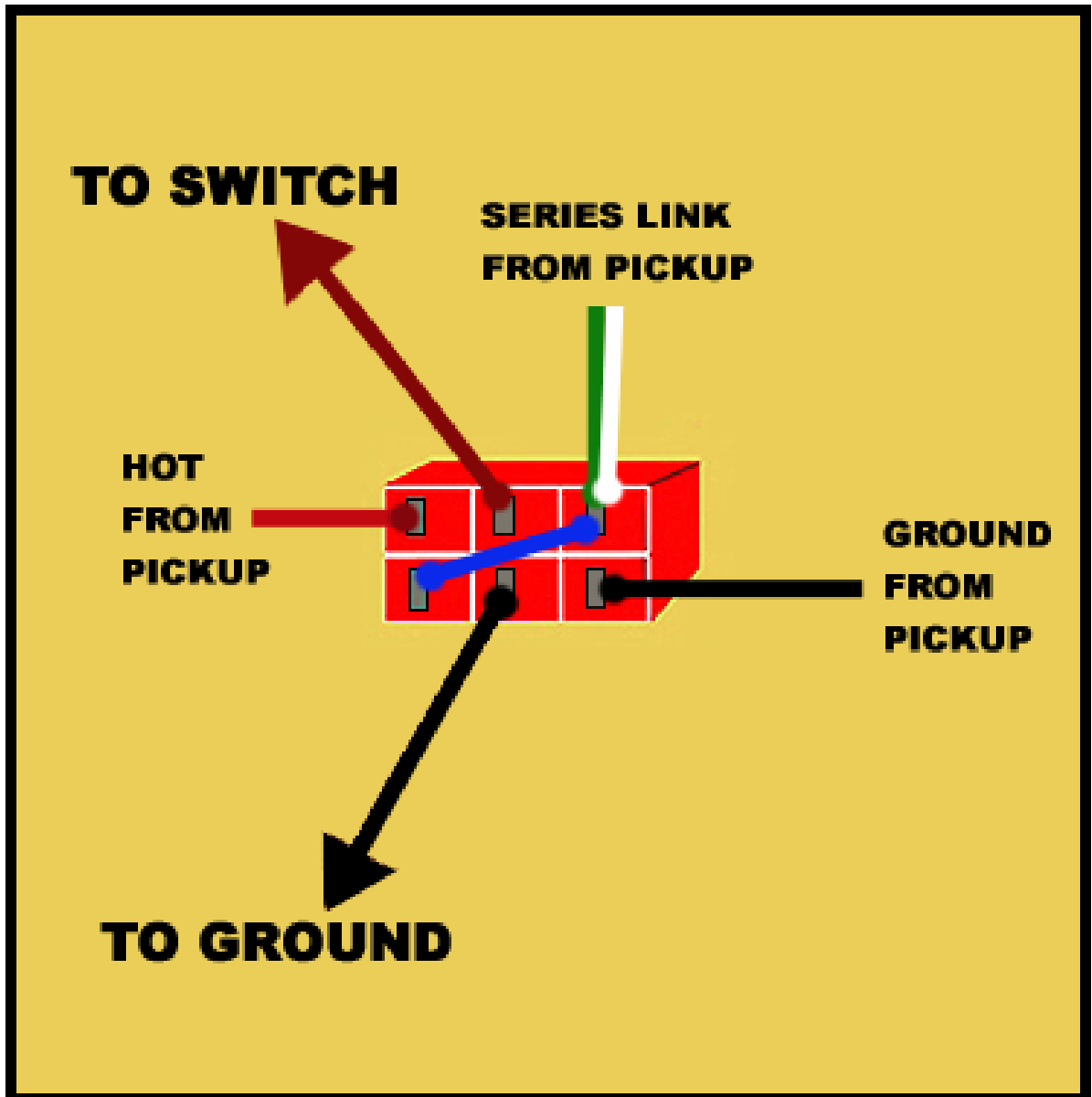
Here is a closeup of the new pickup's wires. Notice that the green and white wires (series link) are already twisted together. Red is hot, and black is ground. Also notice that the bare ground wire is covered with a large rubber shield. A mini toggle switch will also be needed for this modification. The switch I will be using is referred to as an **on/on/on** mini toggle switch. It has 3 different positions that turn on different lugs in each setting.



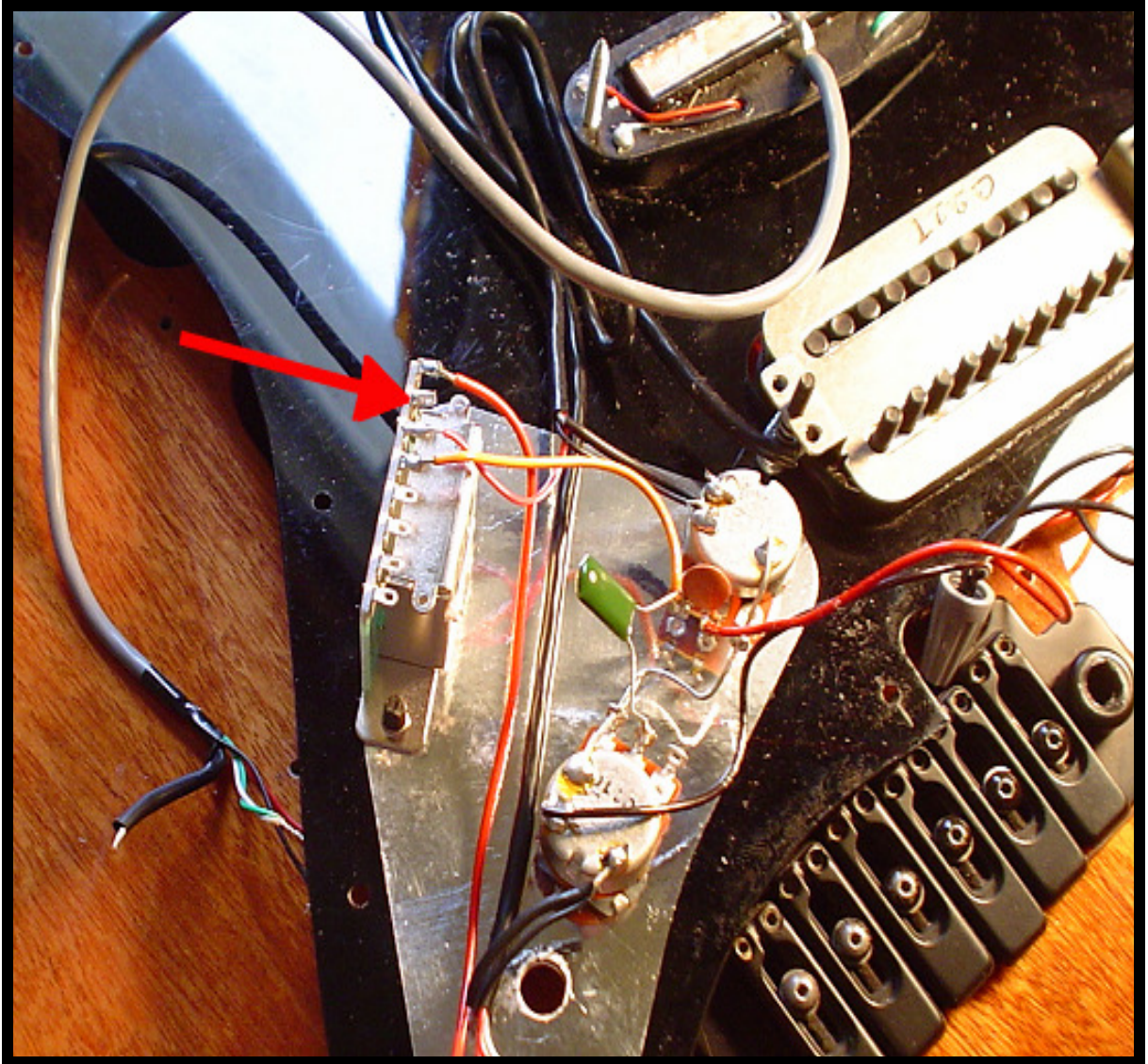
The diagram below shows which lugs are hot in each of the three settings.



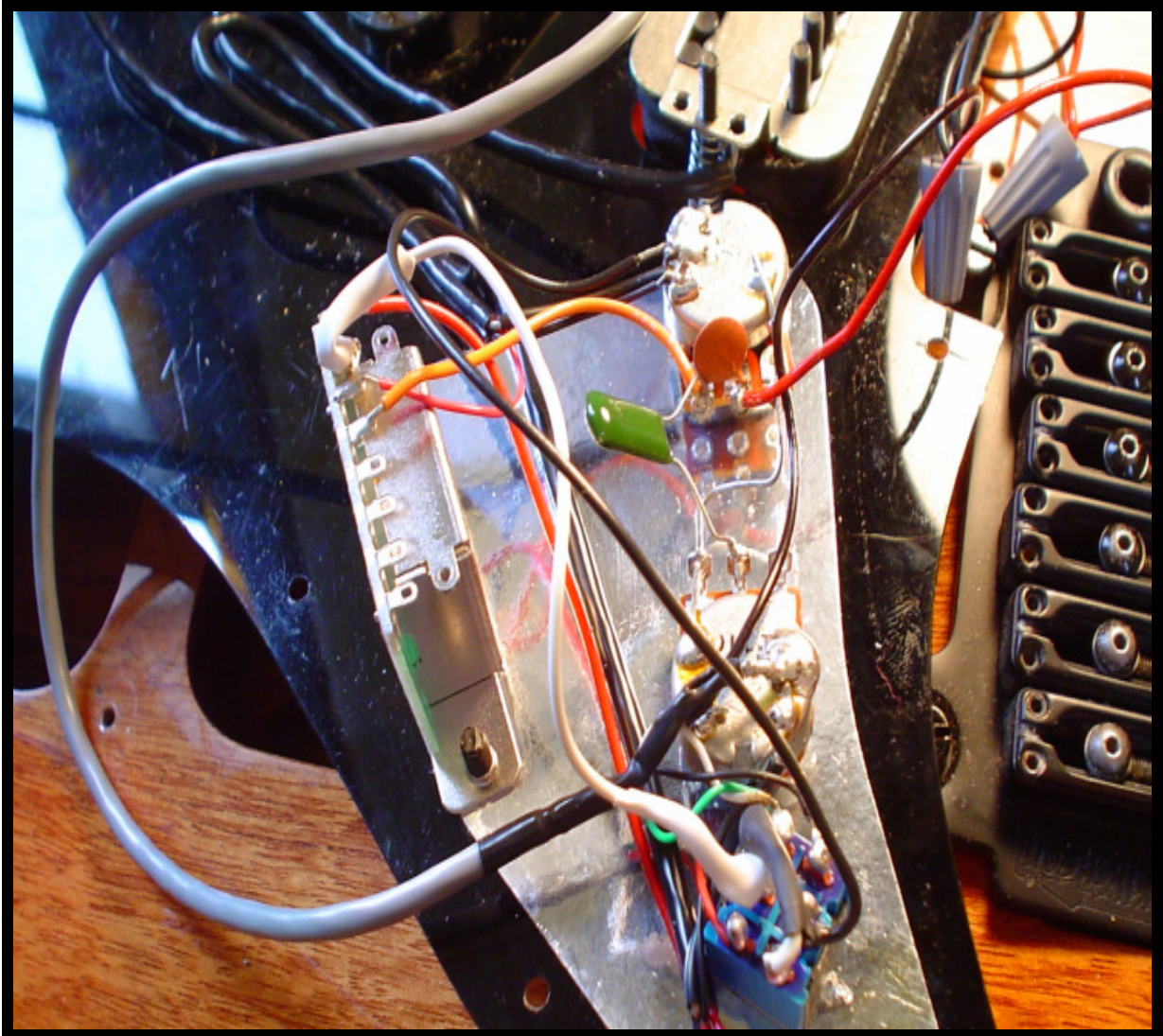
Here is how the mini toggle switch will be wired. After the new pickup has been wired into the switch, you will be left with a hot wire that gets soldered to the same lug that the original pickup was connected to, and a ground wire that gets soldered to the volume or tone potentiometer case. Note: The bare ground wire from the new pickup also goes to ground and gets soldered to the volume or tone pot case. Don't forget the jumper wire which connects the series link to the bottom left lug.



See the red arrow. This is the lug that the original pickup's hot wire was connected to. After the new pickup gets wired to the mini toggle switch, it's hot output wire will go to this same lug on the 5-way switch. Notice the hole that was drilled in the pickguard for the mini toggle switch at the bottom of this photo.



Here is the finished wiring. A white wire with white heat shrink tubing was used to connect the mini toggle switch to the 5-way pickup selector switch.



Here is the finished guitar with pickguard installed.



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